

BBNA Tribal Energy Efficiency & Conservation Block Grant Program

Administered by Alaska Building Science Network

Chignik Lake Final Report



Community Summary

One (1) community building owned by the Chignik Lake Traditional Council received energy efficient weatherization upgrades:

Old Clinic

Retrofits Completed: August 2012

Village-Wide Energy Efficient Weatherization Retrofit Summary:

Total Building Savings All Measures:

• Projected Annual Electrical Savings (kWh):	260
• Projected Annual Electrical Cost Savings:	\$55 ¹
• Projected Annual Fuel Savings (gallons):	316
• Projected Annual Fuel Cost Savings:	\$1,659 ²
• Total Projected Annual Energy Cost Savings:	\$1,714
• Total village wide In-kind contribution:	\$1,500
• Total project cost including In-kind contributions:	\$35,792
• Simple Payback (including In-kind contributions):	20.89 years

¹ kWh Rate [used to calculate electrical cost savings] for Weatherization & Heating Measures (AkWarm Library): \$0.21

² #2 Heating Fuel Rate [used to calculate heating fuel savings] (AkWarm Library): \$5.25/gal

Old Clinic

Weatherization Retrofit Summary:



Materials Installed

Installed a heat recovery ventilation system

Installed 2 efficient space heaters

Caulk and air seal interior of building

Spray foam insulation in attic and floor to seal gaps and plumbing vent penetrations

Installed R-21 fiberglass batts in attic on top of existing batts

Added foam board to attic hatch and sealed

Installed gable vents and covers

Insulated and sealed Rim Joist on 2 outside walls using 2" foam board and spray foam

Insulated floor joist of original building with R-25 fiberglass insulation

Installed insulated skirting around outside of building and EPDM rubber to seal bottom of skirting

Installed 2" foam board to ceiling of one addition

• Pre-retrofit energy use:	547 Gallons / 476 kWh
• Post-retrofit energy use:	231 Gallons / 216 kWh
• Annual energy savings projection:	316 Gallons / 260 kWh
• Pre-retrofit to post retrofit energy reduction:	58% (Fuel) / 55% (Electricity)
• Estimated Annual Electrical Cost Savings:	\$54.60
• Estimated Annual Heating Fuel Cost Savings:	\$1,659.00